

HAWAII'S FRESH FISH INDUSTRY--A "SHOPPING LIST"

FOR FY 1975 SEA GRANT

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The following provides a "first cut" list of projects that Sea Grant may wish to have investigators consider for support in FY 75:

Resource Survey and Assessment

1. Conduct assessment studies of the commercially important insular species, e.g., akule, opakapaka, kumu.

Comment: The development and management of the fishery resources will depend largely on having a good understanding of the population dynamics of the resource base.

2. Conduct a survey and assessment of the insular resources of the northwest Hawaiian Islands.

Comment: The northwest Hawaiian Islands represents the area with the greatest potential for increased production of food fishes in the Hawaiian Islands area. To date, much of the area has not been fished actively. There is a need for a good data base in order to work out a meaningful development and management system.

A full scale survey and assessment program will provide an opportunity to conduct a multitude of biological and ecological study of the marine fauna and flora.

Fishery Development

1. Evaluate the economics and utility of threadfin shad as a baitfish supplement for the local skipjack tuna fishery.

Comment: At a baitfish workshop held in June 1974 and sponsored by the National Marine Fisheries Service and the University of Hawaii Sea Grant Office, one of the recommendations resulting from the meeting was to further explore the use of threadfin shad as a baitfish supplement for the local skipjack tuna fishery.

2. Evaluate the use of golden shiners as a suitable baitfish species for use by the local skipjack tuna fishery.

Comment: The golden shiner has been suggested as having the characteristics of a good baitfish species for tuna fishing. The results of several trials carried out on Maui in 1973 suggest that further extensive trials are warranted. The culture techniques of the golden shiner are well known; however, the necessity of keeping this species in fresh water makes its application for distant water fishing limited. If suitable as a baitfish, its use may be the solution for coastal skipjack tuna fishing of short durations.

3. Develop a suitable trap for catching commercial quantities of insular species found in deep water, e.g., 100-200 fathoms.

Comment: Although fish traps are not used extensively in the Hawaiian Islands, the method may prove to be superior to the hand line method in catching insular species found in deep waters.

Economic Studies

1. Conduct an economic study of the akule fishery to determine expansion potentials of this fishery.

Comment: The akule fishery is the largest volume inshore fishery in Hawaii. The large increase in landings during the past decade has been accompanied by a drop in average ex-vessel price. Possibly the development of alternate markets for the akule, e.g., frozen fish product, may provide the mechanism for price stabilization and a further development of the fishery.

2. Conduct an in-depth study of the per capita consumption of fish and fishery products in Hawaii.

Comment: The feasibility of an expansion of the Hawaiian fisheries for domestic consumption is to some extent dependent upon the current eating habits of the local population. Considering the alternative food stuffs, e.g., meat and poultry, it may be that the Hawaiian populace is already eating a considerable quantity of fish and fishery products. Under these conditions a further expansion of the fishery may be difficult and could possibly be directed only toward an increase in domestic caught fish at the expense of imported fish products.

3. Conduct a study of the amount of fish and fishery products imported by Hawaii.

Comment: Much of the fish and fishery products consumed in Hawaii are imported. A study of the amount and types of fish and fishery products imported should provide clues as to what areas of the Hawaiian fisheries could be expanded or developed.

This project could be conducted as one phase of project 2 listed above.

Food Technology

1. Conduct studies to extend the shelf life of skipjack tuna.

Comment: Skipjack tuna as a fresh fish commodity has a reputation for a short shelf life. This is especially true when compared to other tuna species, e.g., yellowfin and bigeye tunas. Deterioration is evidenced by tissue transforming into canals of gelatinous material. With the demand for tunas increasing on the world market and the skipjack tuna the only commercial tuna species considered to be underutilized, an extension of the shelf life would provide the basis for an expanded fresh fish market, e.g., export of large skipjack tuna to Japan for the highly prized sashimi market.

2. Determine the cause of "burning" in tunas.

Comment: The local tuna industry currently encounters a loss of fish sales due to a "burnt" condition found in the flesh of some yellowfin and bigeye tunas. The phenomenon is especially prevalent in the tunas that are caught by the hand line technique. This technique is mostly used on the island of Hawaii. This condition makes the fish unsuitable for sale as sashimi.

3. Compile and develop recipes utilizing Hawaiian fresh fishes.

Comment: Hawaii's population is composed of people representing a diverse ethnic background. This diversity is reflected in the unusual and exotic ways in which food, including fish, are prepared in Hawaii. A collection of "Hawaiian" recipes for the preparation of fish would probably find acceptance not only in Hawaii but also on the mainland. This work would include compiling recipes that are well known and widely used, the "development" of new recipes, and the "discovery" of new recipes by running contests, etc.

Others

1. Conduct a study of the barriers to the full utilization of Hawaii's fishery resources and develop a systems analysis of alternative development strategies.

Comment: An overview study of the Hawaiian fisheries scene may reveal the critical areas which retard full utilization. A systems approach would provide a rational guideline for implementation.

2. Develop public policies for the development and management of the northwest Hawaiian Island marine resources.

Comment: Since extensive harvesting of the marine fishery resources has not yet taken place, this may be an opportune time for the State to develop sound policies.

3. A study of the commercial fishing licensing and enforcement system in Hawaii.

Comment: One of the criticisms presented by full time commercial fishermen is that the low license fee permits too many part time fishermen to enter the fishery and compete with them for the limited market. Additionally, an unknown but reportedly substantial amount of fish is entering the commercial markets via fishermen without a commercial license. An in-depth study may lead to a system of licensing which would lead to a better managed fishery and provide the State with its due license and tax proceeds.